Be a Corporate Member of a World Class Team

To learn more and for future announcements, contact:

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Be part of revolutionary advancements that will replace diseased human organs

**Why is this now possible?**

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**The Innovation Ecosystem**

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**Recent Nanoscaling Enabling Technologies**

**Nanomechanics**
- Arbitrarily complex multiscale (nm > cm) mechanical structures
- Impedance-based biosensors
- Nanoscale actuators, ECMs on polymer scaffolds, novel polymer materials

**Nanoscale Printing**
- Atomic Calligraphy
- Organic Vapor Jet Printing
- Origami, Kirigami for folding sheets

**Imaging**
- Large, fast, affordable SLMs
- High power, stable lasers at the correct wavelength
- Giant Quantum Dots for guide stars
- Photonic wirebonds

**Cell Engineering**
- Optogenetic control of cells, tissues and organisms
- Engineering control over differentiation/maturation of stem cells
- Vascularization techniques developed for cardiomyocytes

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**Thrusts**

1. **Nanomanufacturing/Glue**
2. **Scaffolds**
3. **Cell Engineering**
4. **Optics/Imaging**

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**Multifunctional model of human heart tissue**
- Platform for fluid transport studies
- Test bed for drug testing and development
- Implantable tissues to assist cardiac function

**Muscle tissues that can assist cardiac function**
Centimeter scale cardiac tissue with complex functionality including heart chambers, large vessel trees, cardiac valves, and conduction system.